



DEPARTMENT OF
ECOLOGY
State of Washington

Clean Fuel Standard

Discussion Document

February 4, 2015

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OVERVIEW.

Purpose.

The purpose of this document is to reduce greenhouse gas emissions from transportation fuel sold, supplied, or offered for sale in Washington.

Applicability.

(1) Effective dates.

- (a) Year 1: online registration provisions apply.
- (b) Year 2 and beyond: All provisions apply.

(2) Applicability.

- (a) This rule applies to:
 - (i) Any transportation fuel sold, supplied or offered for sale in Washington; and
 - (ii) Any person who, as a regulated party, is responsible for a transportation fuel in a calendar year.

(3) What types of fuel are subject to regulation?

The types of transportation fuels to which the Clean Fuel Standard applies include:

- (a) Gasoline;
- (b) Diesel fuel or ultra-low sulfur diesel;
- (c) Fossil compressed natural gas (“fossil CNG”), fossil liquefied natural gas (“fossil LNG”), or fossil liquefied compressed natural gas (“fossil L-CNG”);
- (d) Bio-based compressed natural gas (“bio-CNG”), bio-based liquefied natural gas (“bio-LNG”), or bio-based liquefied compressed natural gas (“bio-L-CNG”);
- (e) Electricity;
- (f) Compressed or liquefied hydrogen (“hydrogen”);
- (g) A fuel blend containing hydrogen (“hydrogen blend”);
- (h) A fuel blend containing greater than 10 percent ethanol by volume;

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- (i) A fuel blend containing biomass-based diesel;
 - (j) Denatured fuel ethanol;
 - (k) Neat (100 percent) biomass-based diesel; and
 - (l) Any other liquid or non-liquid fuel.
- (4) **Clean fuel (credit generator fuel).**
- (a) Each fuel in this section is presumed to have a carbon intensity that meets the Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) or the Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2).
 - (b) Clean fuel applies to each of the following transportation fuels:
 - (i) Bio-based compressed natural gas, also referred to as bio-CNG;
 - (ii) Bio-based liquefied compressed natural gas, also referred to as bio-L-CNG;
 - (iii) Bio-based liquefied natural gas, also referred to as bio-LNG;
 - (iv) Electricity;
 - (v) Fossil compressed natural gas, also referred to as fossil CNG, derived from North American sources;
 - (vi) Fossil liquefied compressed natural gas, also referred to as fossil L-CNG;
 - (vii) Fossil liquefied natural gas, also referred to as fossil LNG;
 - (viii) Hydrogen fuel – compressed or liquefied, also referred to as hydrogen;
 - (ix) Hydrogen fuel blend; or
 - (x) Liquefied petroleum gas, also referred to as propane.
- (5) **Clean Fuel Standard requirements for an alternative fuel intended for use in a single-fuel vehicle.**
- (a) Gasoline Clean Fuel Standard. A regulated party or credit generator must comply with the Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) for alternative fuel intended to be used in a single-fuel light- or medium-duty vehicle.

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- (b) Diesel Clean Fuel Standard. A regulated party or credit generator must comply with the Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2) for alternative fuel intended to be used in a single-fuel application other than a single-fuel light- or medium-duty vehicle.
- (6) Clean Fuel Standard requirements for biomass-based diesel fuel provided for use in a single-fuel vehicle.**
- (a) A regulated party or credit generator must use the Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2) for biomass-based diesel fuel intended to be used in any single-fuel for the following applications:
 - (i) Light-, medium-, or heavy-duty vehicle;
 - (ii) Off-road transportation application;
 - (iii) Off-road equipment application;
 - (iv) Commercial harbor craft application; or
 - (v) Non-stationary source application not otherwise specified.
- (7) Clean Fuel Standard requirements for transportation fuels intended for use in multi-fuel vehicles.**
- (a) Vehicle that uses gasoline or diesel.

For an alternative fuel to be used in a multi-fueled vehicle, a regulated party or credit generator must use the Clean Fuel Standard for:

 - (i) Gasoline and gasoline substitutes (Table 1) if one of the fuels used in the multi-fuel vehicle is gasoline; or
 - (ii) Diesel fuel and diesel fuel substitutes (Table 2) if one of the fuels used in the multi-fuel vehicle is diesel fuel.
 - (b) Vehicle uses fuel other than gasoline or diesel.

For an alternative fuel to be used in a multi-fueled vehicle (including a bi-fuel vehicle) that does not use gasoline or diesel fuel, a regulated party or credit generator must use:

 - (i) The Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) if that alternative fuel is used or intended to be used in a light- or medium-duty vehicle.

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- (ii) The Clean Fuel Standard for diesel fuel and diesel substitutes (Table 2) if that alternative fuel is used or intended to be used in another vehicle.

Exempt fuel.

Exempt fuel based on fuel use.

Transportation fuel supplied for use in the following vehicles is exempt from the definition of regulated fuel:

- (1) Aircraft;
- (2) Racing vehicles, meaning a competition vehicle not used on public highways;
- (3) Military tactical vehicles and tactical support equipment;
- (4) Locomotives; and
- (5) Ocean-going vessels. This exemption does not apply to:
 - (a) Any ship actively engaged in carrying cargo or passengers for hire in offshore navigation between Washington ports; or
 - (b) Vessels issued a fishery or recreational endorsement under 46 U.S. Code [Chapter 121](#).

General requirements.

Who is a regulated party?

A regulated party is the person responsible for meeting the Clean Fuel Standard in Table 1 and Table 2.

Who is a credit generator?

A credit generator is the person who can generate credits for selling, supplying, or offering for sale a transportation fuel presumed to meet the Clean Fuel Standard.

Who is a broker?

A broker is a third party user registered in the Online Registration System specifically to facilitate the transfer of credits between parties.

- (1) **Regulated party requirements.**

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- (a) The Regulated party status for regulated fuel section designates the regulated party for gasoline, diesel fuel, ethanol, biodiesel and biomass-based diesel.
 - (b) Regulated parties must:
 - (i) Register (Online registration section);
 - (ii) Keep records (Records section);
 - (iii) Report quarterly and annually (Quarterly Progress Reports section and the Annual Compliance Report section); and
 - (iv) Comply with the Clean Fuel Standard for:
 - (A) Gasoline and gasoline substitutes (Table 1).
 - (B) Diesel fuel and diesel fuel substitutes (Table 2).
- (2) **Credit generator requirements.**
- (a) A credit generator may voluntarily participate in the Clean Fuel Standard Program.
 - (b) A credit generator who wants to generate credits must:
 - (i) Register (Online registration section);
 - (ii) Keep records (Records section); and
 - (iii) Report quarterly and annually (Quarterly Progress Reports section and the Annual Compliance Report section).
 - (c) The following sections establish requirements for a credit generator for a given fuel type:
 - (i) The Regulated party status for regulated fuel section designates the requirements for compressed natural gas, liquefied natural gas, liquefied compressed natural gas and liquefied petroleum gas;
 - (ii) The Credit generator status for electricity section designates the requirements for electricity; and
 - (iii) The Credit generator status for hydrogen fuel or a hydrogen blend fuel designates the requirements for hydrogen fuel or a hydrogen blend fuel.

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(3) **Broker requirements.**

To act as a broker, you must comply with the requirements in the Online registration section.

(4) **Registration deadlines.**

The following is a summary of the registration deadlines. See the Online registration section for specific registration requirements.

Participant Type	Deadline to Submit Complete Registration Application	Coverage
Regulated party	Initial registration deadline: within 3 months of rule adoption	Register for each fuel type
	After initial registration deadline: at least 30 days prior to the filing date for any report required by this rule.	
Credit generator	<ul style="list-style-type: none">Anytime during a calendar yearReporting starts with the quarter registration was approved	Register for each fuel type
Broker	Before making or facilitating any credit trades.	Subject to agreement with registered party

(5) **Recordkeeping deadlines.**

The following is a summary of the recordkeeping requirements. See the Records section for specific recordkeeping requirements.

Participant type	Recordkeeping Deadline
Regulated party	First year: start at the beginning of a calendar year
Credit generator	Date complete application submitted

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(6) **Report deadlines.**

The following is a summary of the reporting deadlines. See the Quarterly Progress Reports section and Annual Compliance Reports section for specific reporting requirements. The Summary checklist of reporting requirements (Table 5) specifies the parameters to report.

Report type	Reporting period	Reporting deadline
Quarterly Progress Report	January, February, March	May 31
	April, May, June	August 31
	July, August, September	November 30
	October, November, December	February 28 of the following year
Annual Compliance Report	Calendar year	April 30 of the previous year

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DESIGNATION OF REGULATED PARTIES AND CREDIT GENERATORS.

Regulated party status for regulated fuel.

(1) **Applicability.**

The purpose of this section is to establish the criteria by which a regulated party is determined. This section also prescribes the transfer of regulated party status and how credits are generated for regulated fuel.

(2) **Designation of Producers and Importers of Gasoline and Diesel as Regulated Parties.**

(a) Gasoline where an alcohol is added to downstream blendstock.

For gasoline consisting of blendstock and an alcohol added downstream from the Washington facility at which the blendstock was produced or imported, the regulated party is initially the following:

- (i) With respect to the blendstock, the regulated party is the producer or importer of the blendstock.
- (ii) With respect to the alcohol, the regulated party is the producer or importer of the alcohol.

(b) All Other Gasoline. For any other gasoline the regulated party is the producer or importer of the gasoline.

(c) Diesel where biomass-based diesel is added to downstream diesel fuel.

For a diesel fuel blend consisting of diesel fuel and a bio-mass based diesel added downstream from the Washington facility at which the diesel fuel was produced or imported, the regulated party is the following:

- (i) With respect to the diesel fuel, the regulated party is the producer or importer of the diesel fuel,
- (ii) With respect to the biomass-based diesel, the regulated party is the producer or importer of the biomass-based diesel.

(d) All other diesel fuels. For any other diesel fuel, the regulated party is the producer or importer of the diesel fuel.

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(3) **Fuel transfer notification requirement.**

When transferring ownership of fuel, the recipient of the fuel must notify the transferor whether they are a producer or importer.

(4) **Fuel transfer validity.**

A fuel transfer is valid when the transferor and the recipient complete all of the requirements of this section.

(5) **Fuel ownership is transferred.**

When a regulated party transfers ownership of transferred fuel, the recipient of the fuel is the regulated party *unless* the transferor chooses to remain the regulated party under subsection (6) of this section.

(a) Transferor requirements. The transferor must complete all of the following by the date the fuel is transferred.

(i) Provide the recipient a product transfer document that includes:

- (A) Transferor company name, address, and contact information;
- (B) Recipient company name, address, and contact information;
- (C) Date of transfer;
- (D) Fuel pathway code and carbon intensity value;
- (E) Volume or amount of fuel transferred;
- (F) Statement that the recipient is now the regulated party for the transferred fuel; and
- (G) Fuel production company ID and facility ID, if available.

(ii) Maintain the original product transfer documentation.

(b) Recipient requirements. The recipient:

- (i) Must notify the transferor prior to the transfer whether it is a producer or importer; and
- (ii) Becomes the regulated party who must comply with:
 - (A) Registration, recordkeeping, and reporting requirements for the transferred fuel; and

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- (B) The Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) or the Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2).

- (iii) Is eligible to generate credits for the transferred fuel.

(6) **Fuel ownership remains with original owner.**

These requirements apply when a regulated party elects to retain ownership of the transferred fuel and remains the regulated party.

- (a) Transferor requirements. The transferor:

- (i) Must provide the recipient a product transfer document that includes:
 - (A) The transferor company name, address, and contact information;
 - (B) The recipient company name, address, and contact information;
 - (C) The date of transfer;
 - (D) The volume or amount of fuel transferred; and
 - (E) A statement that the transferor remains the regulated party.
- (ii) Must comply with the:
 - (A) Registration, recordkeeping, and reporting requirements for the transferred fuel; and
 - (B) Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) or the Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2).
- (iii) Is eligible to generate credits for the transferred fuel.

- (b) Recipient requirements.

- (i) The recipient is not the regulated party for the transferred fuel.
- (ii) The recipient must maintain the product transfer documentation as required in the Records section.

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(7) **Fuel ownership transfers when the recipient is neither a producer nor an importer.**

These requirements apply when a regulated party transfers fuel to a recipient who is neither a producer nor an importer of fuel.

- (a) To transfer the regulated party status from the transferor to the recipient:
 - (i) The recipient must agree to become the regulated party for the transferred fuel;
 - (ii) The two parties must agree by written contract; and
 - (iii) The transferor and recipient must comply with the requirements in subsection (5) of this section.
- (b) To retain the regulated party status with the fuel transferor:
 - (i) The recipient does not agree to become the regulated party for the transferred fuel; and
 - (ii) The transferor and recipient must comply with requirements in subsection (6) of this section.

Credit generator status for CNG, LNG, L-CNG, biomethane, and petroleum gas.

(1) **Applicability.**

This section prescribes how credits are generated for each fuel type when used as an on-road transportation fuel.

(2) **Responsibilities to generate credits.**

An entity subject to this section may generate credits by establishing an account in the Online Registration System, and complying with the registration, recordkeeping, and reporting requirements.

(3) **Determining credit generator status for CNG.**

(a) **Fossil CNG.**

For fossil CNG, the entity eligible to generate credits is the owner of the fueling equipment at the dispensing location.

(b) **Bio-CNG.**

For bio-CNG produced in Washington and directly dispensed to vehicles, the

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entity eligible to generate credits is the producer of the bio-CNG. To generate credits, the fuel could not have been first blended into fossil CNG or fossil LNG.

(c) **Blended fossil CNG and bio-CNG.**

For fuel that is a blend of fossil CNG and bio-CNG, the generated credits must be divided based on the percentage of fuel used in the blend.

The entity able to generate credits is

- (i) For the fossil CNG portion: the owner of the fueling equipment at the dispensing location.
- (ii) For the bio-CNG portion: the producer or importer of the bio-CNG injected into the pipeline for delivery to the dispensing location.

(4) **Determining credit generator status for LNG.**

(a) **Fossil LNG.**

For fuel consisting solely of fossil LNG, the entity eligible to generate credits is the owner of the fossil LNG before it is transferred to storage at the dispensing location.

(b) **Bio-LNG.**

For fuel consisting solely of bio-LNG produced in Washington and directly dispensed to vehicles, the entity eligible to generate credits is the producer of the bio- LNG. To generate credits, the fuel could not have been first blended into fossil CNG or fossil LNG.

(c) **Blended fossil LNG and bio-LNG.**

For fuel that is a blend of fossil LNG and bio-LNG, the generated credits must be divided based on the percentage of fuel used in the blend.

The entity able to generate credits is:

- (i) For the fossil LNG portion: the owner of the fossil LNG before it is transferred to storage at the dispensing location.
- (ii) For the bio-LNG portion: the producer or importer of the bio-LNG injected into the pipeline for delivery to the production facility.

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(5) **Determining credit generator status for L-CNG.**

(a) **Fossil L-CNG.**

For fuel consisting solely of fossil LNG re-gasified and compressed to L-CNG, the entity eligible to generate credits is the owner of the fossil LNG before it is transferred to the location where it is re-gasified and dispensed.

(b) **Bio-L-CNG.**

For fuel consisting solely of bio-L-CNG produced in Washington and directly dispensed to vehicles, the entity eligible to generate credits is the producer of the bio-L-CNG. To generate credits, the fuel could not have been first blended into fossil CNG or fossil LNG.

(c) **Blend of fossil L-CNG and bio-L-CNG.**

For fuel that is a blend of fossil L-CNG and bio-L-CNG, the generated credits must be divided based on the percentage of fuel used in the blend.

The entity able to generate credits is

- (i) For the fossil L-CNG portion re-gasified and compressed from fossil LNG: the owner of the fossil LNG before it is transferred to the location where it is re-gasified and dispensed.
- (ii) For the bio-L-CNG portion re-gasified and compressed from bio-LNG: the producer or importer of the bio-LNG injected into the pipeline for delivery to the production facility.

(6) **Liquefied petroleum gas (propane).**

For propane used as a transportation fuel, the entity eligible to generate credits is the owner of the fueling equipment at the dispensing location.

(7) **Fuel ownership is transferred.**

- (a) Both parties must agree by written contract that the person acquiring ownership of the fuel accepts the compliance obligation as the credit generator.
- (b) Transferor requirements.

To transfer the compliance obligation for the fuel, the transferor must complete all of the following by the time fuel ownership is transferred:

- (i) Provide the recipient a product transfer document that states:

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- (A) The recipient is now the regulated party; and
- (B) The volume and carbon intensity of the transferred fuel from the quarterly reporting requirements in the Quarterly progress reports section; and
- (ii) Maintain the product transfer documentation.
- (c) Recipient requirements.

The recipient becomes the credit generator who is eligible to generate credits for the fuel by:

- (i) Establishing an account in the Online Registration System;
 - (ii) Complying with registration, recordkeeping, and reporting requirements for the fuel.
- (8) **Fuel ownership remains with original owner.**

Unless the recipient of any transferred fuel in this section agrees to become a credit generator, the transferor retains:

- (a) The status as the credit generator; and
- (b) All compliance obligations for the transferred fuel.

Credit generator status for electricity.

(1) **Applicability.**

This section prescribes how credits are generated for electricity when used as an on-road transportation fuel.

(2) **Responsibilities to generate credits.**

- (a) To generate credits for electricity supplied as a transportation fuel, an entity subject to this section must:
 - (i) Establish an account in the Online Registration System;
 - (ii) Comply with registration, recordkeeping, and reporting requirements.
 - (iii) Comply with the following additional requirements:

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- (A) For residential electric vehicle charging: all of the requirements in (2)(c) in this subsection;
 - (B) For non-residential electric vehicle charging: all of the requirements in (2)(c) in this subsection;
 - (C) For electric vehicle fleet charging: all of the requirements in (2)(c) in this subsection; and
 - (D) For private access electric vehicle charging: requirements (2)(c)(ii) and (c)(iv) in this subsection.
- (b) Additional requirements:
- (i) Use all credit proceeds to benefit current or future electric vehicle customers.
 - (ii) Educate the public on the benefits of electric vehicle transportation (including environmental benefits and costs of electric vehicle charging, or total cost of ownership, as compared to gasoline). These efforts may include, but are not limited to:
 - (A) Public meetings
 - (B) Employee meetings
 - (C) EV dealership flyers
 - (D) Utility customer bill inserts or employee flyers
 - (E) Radio and/or television advertising
 - (F) Webpage content
 - (G) Preferred parking
 - (iii) Provide rate options that encourage off-peak charging and minimize adverse impacts to the electrical grid.
 - (iv) Include the following supplemental information in the Annual Compliance Report:
 - (A) An itemized summary of efforts to meet requirements (i) through (iii) above; and
 - (B) Costs associated with meeting the requirements.

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(3) Residential electric vehicle charging.

An Electrical Distribution Utility is eligible to generate credits for electric vehicle charging in a single or multi-family residence in their service district.

(4) Non-residential electric vehicle charging.

(a) For electricity used as on-road transportation fuel supplied through a public access non-residential setting, the third party non-utility Electric Vehicle Service Provider or Electrical Distribution Utility is eligible to generate credits. The credit generator must:

- (i) Install the charging equipment or have an agent install the equipment; and
- (ii) Contract with the property owner where the equipment is located to maintain or service the charging equipment.

(b) If the Electric Vehicle Service Provider in subsection (4)(a) is not generating credits for a specific volume of fuel or has not otherwise complied with the requirements in subsection (2) of this section, the Electrical Distribution Utility is eligible to generate credits with Ecology approval.

(5) Electric vehicle fleet charging.

(a) Normal operations.

- (i) The fleet operator is eligible to generate credits for electricity used as an on-road transportation fuel supplied to a fleet of electric vehicles.
- (ii) If the fleet operator in subsection (5)(a)(i) of this subsection is not generating credits for a specific volume of fuel or has not otherwise complied with the requirements in subsection (2) of this section, the Electrical Distribution Utility is eligible to generate credits with Ecology approval.
- (iii) To receive credit for on-road transportation fuel supplied to an electric vehicle fleet, the number of electric vehicles in the fleet must be included as supplemental information in the Annual Compliance Report.

(b) Battery switch station.

- (i) For on-road transportation fuel supplied to a fleet through the use of a battery switch station, the station owner is eligible to generate credits.
- (ii) If the station owner in subsection (5)(b)(i) of this subsection is not

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generating credits for a specific volume of fuel or has not otherwise complied with the requirements in subsection (2) of this section, the Electrical Distribution Utility is eligible to generate credits for the electricity with Ecology approval.

(6) Private access electric vehicle charging.

- (a) For on-road transportation fuel supplied through private access electric vehicle charging at a business or workplace, the business owner is eligible to generate credits.
- (b) If the business owner in subsection (6)(a) of this subsection is not generating credits for a specific volume of fuel or has not otherwise complied with the requirements in subsection (2) of this section, the Electrical Distribution Utility is eligible to generate credits for the electricity with Ecology approval.

Credit generator status for hydrogen fuel or a hydrogen blend fuel.

(1) Applicability.

This section applies to providers of hydrogen fuel and a hydrogen blend fuel for use as an on-road transportation fuel in Washington.

(2) Credit generation.

For a hydrogen fuel or a hydrogen blend fuel, the person who owns the finished hydrogen fuel is eligible to generate credits. A hydrogen blend is considered to be a finished hydrogen fuel at the completion of blending.

(3) Responsibilities to generate credits.

- (a) The owner of the finished hydrogen fuel may generate credits by:
 - (i) Registering as a credit generator in the Online Registration System; and
 - (ii) Complying with registration, recordkeeping, and reporting requirements.
- (b) To transfer ownership of finished hydrogen fuel so the person who acquires the fuel is eligible to generate credits:
 - (i) The transferor and recipient must agree by written contract by the time ownership is transferred that the person acquiring the fuel is eligible to generate credits;

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- (ii) The transferor must provide the recipient a Product Transfer document with the information required in Product Transfer Documents in the Records section by the time fuel is transferred.

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REGISTRATION

Online registration.

(1) **Registration format.**

A reporting party must register in a format specified by Ecology.

(2) **Required information.**

Registration information must include:

- (a) Company identification, including Federal Employer Identification Number (FEIN), physical and mailing addresses, phone numbers, e-mail address, contact names; Online Registration System username and password.
- (b) Status as a regulated party or credit generator.
- (c) The proposed carbon intensity value for each transportation fuel.
- (d) A Qualifying Account Letter.
 - (i) Submit documentation that:
 - (A) States the basis for an account. Declare whether you are a regulated party, credit generator, or broker;
 - (B) Names a primary account administrator and at least one secondary account administrator; and
 - (C) Is signed by the business owner, a managing partner, or a corporate officer.
 - (ii) The company must maintain the original letter.
- (e) An Account Administrator(s).
 - (i) Include the following statement:

I certify under penalty of perjury that:

 - I was selected as the primary account administrator [or the secondary account administrator] by an agreement that is binding on all persons who have the legal right to control credits held in the account.

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- I have all the necessary authority to carry out the duties and responsibility on behalf of these persons.
 - Each person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by Ecology or a court regarding the account.
- (ii) The company must retain the original letter for the duration of the account administrator.
- (3) **Establishing separate accounts.**
- (a) A reporting party may establish separate accounts for separate subsidiaries.
- (b) Each company that receives a user account must file reports quarterly and annually, and demonstrate compliance (Annual Compliance Report) separately.
- (4) **Broker registration requirements.**
- (a) A broker is not a reporting party employee.
- (b) Registration information must include:
- (i) Broker's organization identification, including Federal Employer Identification Number (FEIN), physical and mailing addresses, phone numbers, e-mail address, contact names; Online Registration System username and password;
- (ii) A statement attesting:
- “By submitting the broker registration application to the Online Registration System for an account in the Washington Clean Fuel Standard Online Registration System I am submitting to the jurisdiction of the Washington courts. I certify under penalty of perjury that I have not been convicted of a felony in the last five years.”
- (c) A broker must:
- (i) Be registered by Ecology; and then
- (ii) Be authorized by an account administrator to represent a reporting party in credit transfers.

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(5) Requirements to change account administrators.

- (a) Account administrators must be changed by electronically submitting documentation that includes the statement in subsection (2)(e) above (Select an Account Administrator).
- (b) The company must retain the original document for the duration of an account administrator.
- (c) Notwithstanding any change, all representations, actions, inactions, and submissions by the previous account administrators prior to the time and date when Ecology receives the superseding information shall be binding on the registered party.

(6) Registration denial.

Ecology may deny registration for any of the following reasons:

- (a) Based on information provided;
- (b) Ecology determines the applicant provided false or misleading information; or
- (c) Ecology determines the applicant withheld information material to its application.

(7) Account approval.

An account is established when Ecology approves the application.

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REPORTING

Records

(1) **Records.**

Regulated parties and credit generators must retain the following records for at least 5 years:

- (a) Product transfer documents;
- (b) Credit transfer documents;
- (c) Copies of all data and reports submitted to Ecology;
- (d) Records related to each fuel transaction; and
- (e) Records used for compliance or credit calculations.

(2) Documenting fuel transfers.

A product transfer document provided by a reporting party to establish the compliance responsibility for fuel must state the information specified below.

- (a) For transfers where a compliance obligation is being passed to the transferee:
 - (i) Transferor company name, address and contact information;
 - (ii) Transferee company name, address and contact information;
 - (iii) Transaction date;
 - (A) For non-aggregated transactions: date of title transfer.
 - (B) For aggregated transactions: quarter end date.
 - (iv) Fuel pathway code (FPC) and carbon intensity (CI);
 - (v) Volume/amount and units;
 - (vi) A statement identifying whether the compliance obligation is passed to the transferee; and
 - (vii) Fuel production company ID and facility ID as registered with the EPA RFS2 program or the Clean Fuel Standard program

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- (b) For transfers where the compliance obligation was retained by the transferor, the following is to be provided to the transferee and passed along to any subsequent owner or supplier:
 - (i) All information identified in (a) above;
 - (ii) The following notice stated as follows:

“This transportation fuel has been reported to the Ecology Clean Fuel Standard Program by <Insert name of Reporting Party holding the compliance obligation> for intended use in Washington. Any export of this fuel from Washington by any subsequent owner or supplier must be reported to the Ecology Clean Fuel Standard program. Contact the Ecology Clean Fuel Standard Administrator for assistance with reporting exported volumes.”
- (3) The original signed Qualifying Account Letter and the original letter designating an account administrator must be kept until they are invalid.
- (4) **Data verification and review.**

All data, records, and calculations used to comply with or claim credit under the Clean Fuel Standard are subject to verification by Ecology. Regulated parties and credit generators must provide this information within 20 calendar days of a written request.
- (5) **Access to facility and records.**

Ecology has the right of entry to any premises owned, operated, used, leased, or rented by an owner or operator of a facility in order to inspect and copy records relevant to the determination of compliance. Scheduling of access must be arranged in advance where feasible and must not unreasonably disturb normal operations, provided, however that access must not be unreasonably delayed.

Quarterly progress reports.

- (1) Quarterly Progress Reports must be submitted:
 - (a) By the deadlines in the General Requirements section.
 - (b) Using the Online Registration System in a format specified by Ecology.
- (2) Responsibilities.
 - (a) Reporting party responsibilities.

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- (i) The reporting party is solely responsible for ensuring that Ecology receives its Quarterly Progress Report by the deadlines.
 - (ii) The report must contain a statement attesting to the report's accuracy and validity.
- (b) Ecology responsibilities.
 - (i) Ecology is not responsible for failure of electronically submitted reports.
 - (ii) Ecology must deem a report submitted electronically to be valid when accompanied by a digital signature that meets the requirements of a [SecureAccess Washington](#) account.¹
- (3) **General reporting requirements for quarterly progress reports.**

The Quarterly Progress Report must contain the information in the Summary checklist of reporting requirements (Table 5) for each transportation fuel.
- (4) **Specific quarterly reporting parameters for biomethane (including Bio-CNG, Bio-LNG and Bio-L-CNG) used as a transportation fuel.**

The reporting party must report for each private access, public access, or home fueling facility to which the biomethane is supplied as a transportation fuel:

 - (a) The information specified for CNG and LNG in the Summary checklist of reporting requirements (5).
 - (i) Report the fuel dispensed for all light/medium duty vehicles, heavy duty vehicles with compression ignition engines and heavy duty vehicles with spark ignition engines by:
 - (A) CNG and L-CNG: standard cubic feet; and
 - (B) LNG: gallons.
 - (ii) The amount of fuel dispensed based on:
 - (A) The use of separate fuel dispenser meters at each fuel dispenser; or
 - (B) Where separate meters at each fuel dispenser are not available and with prior Ecology approval, the amount of fuel dispensed using another method the reporting party demonstrates to be equivalent

¹ [SAW](#) allows you to access multiple online government services with the use of a single user ID and password. Click [here](#) and scroll down to Step 2 for more information of how to sign up for a SAW account.

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to or better than the use of separate fuel meters at each fuel dispenser.

- (b) The carbon intensity value of the bio-CNG, bio-LNG, or bio-L-CNG approved under the Online Registration section.

(5) **Specific quarterly reporting parameters for electricity used as a transportation fuel.**

For electricity used as a transportation fuel, a credit generator must report the following:

- (a) The information specified for electricity in the Summary checklist of reporting requirements (Table 5).
- (b) The carbon intensity value of the electricity approved under the Online Registration section.
- (c) For residential charging stations, the total electricity dispensed (in kilowatt-hours) to vehicles at residences, measured by:
 - (i) Direct metering: The use of direct metering (either sub-metering or separate metering) to measure the electricity directly dispensed to all vehicles at each residence; or
 - (ii) Ecology-approved alternate method: The total electricity dispensed as a transportation fuel using an Ecology-approved alternative method. The reporting party must demonstrate that an alternative method is substantially similar to the use of direct metering.
- (d) For each public access, fleet, and workplace private access charging facility, the amount of electricity dispensed (in kilowatt-hours).

(6) **Specific quarterly reporting parameters for hydrogen or a hydrogen blend used as a transportation fuel.**

- (a) The information specified for hydrogen and hydrogen blend in the Summary checklist of reporting requirements (Table 5).
- (b) For each private access fueling facility, the amount of fuel dispensed (in kilogram) by vehicle weight category: LDV & MDV and HDV.
- (c) For each public access filling station, the amount of fuel dispensed (in kilogram) by vehicle weight category: LDV & MDV and HDV.
- (d) The carbon intensity value of the hydrogen or the blendstocks used to produce the hydrogen blend.

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Annual compliance report.

(1) April 30 submittal deadline.

A reporting party and a credit generator must submit an Annual Compliance Report to Ecology by April 30 for the compliance period of January 1 through December 31 of the previous year using the Online Reporting System.

(2) General reporting requirements for annual compliance reports.

An Annual Compliance Report must meet, at a minimum, the general and specific requirements for the Quarterly Progress Report and the additional requirements in this section.

- (a) A reporting party must submit the following information:
 - (i) The total credits and negative balances generated in the current compliance period, calculated in the Online Registration System;
 - (ii) Any credits carried over from the previous compliance period;
 - (iii) Any negative balances carried over from the previous compliance period;
 - (iv) The total credits acquired from the other party;
 - (v) The total credits sold or transferred; and
 - (vi) The total credits retired to meet the compliance obligation.
- (b) A producer of Washington blendstock, or diesel fuel must report, for each of its refineries, the marketable crude oil name or other crude oil name designation, volume (in gallons), and country (or state) of origin for each crude supplied to the refinery during the annual compliance period.
- (c) All pending credit transfers initiated during a compliance period must be completed prior to submittal of the Annual Compliance Report.

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DEMONSTRATING COMPLIANCE

Credit and deficit basics.

(1) **Carbon intensity values.**

- (a) When calculating carbon intensity values, regulated parties and credit generators must:
 - (i) Use a carbon intensity value approved under the Online Registration section; or
 - (ii) Use the carbon intensity value proposed in its registration if:
 - (A) The applicant submitted a complete registration; and
 - (B) Ecology has not made a final decision on the proposed value; and
 - (iii) Express the carbon intensity value with the last significant figure in the hundredths place. (example: 99.65)

(2) **Fuel quantities.**

Express fuel quantities to the nearest whole unit applicable for each fuel such as gallon, standard cubic feet, kilowatt-hour, or kilogram.

(3) **Conversion of energy.**

Convert fuel quantity units to megajoules (MJ) by multiplying the unit by the corresponding energy density in Energy densities of fuels (Table 6).

(4) **Metric tons of carbon dioxide equivalent.**

Express credits and deficits to the nearest whole metric ton of carbon dioxide equivalent (MT/CO₂e) using standard rounding protocols.

(5) **Credit generation.**

A Clean Fuel Standard credit is generated during a compliance period when the carbon intensity value of fuel is *lower* than the Clean Fuel Standard for the fuel. The compliance period is January 1 to December 31 of the same calendar year.

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(6) Deficit generation.

A Clean Fuel Standard deficit (negative balance) is generated during a compliance period when the carbon intensity value of fuel is *higher* than the Clean Fuel Standard. The compliance period is January 1 to December 31 of the same calendar year.

Fuels to include in credit calculation.

(1) Fuels included in the calculation.

Fuels assigned to a regulated party or credit generator are calculated by the Online Registration System.

(2) Fuels exempted from the calculation.

No credits will be calculated for fuels:

- (a) Exported outside Washington; or
- (b) Exempt under the Exempt Fuel provisions.

Calculating credits.

- (1) Calculate the credit balance for each applicable fuel consistent with the requirements in the Credit and Deficit Basics section.
- (2) Use the following formulas to calculate the credit balance in a compliance period.
 - (a) Step 1.

Use this formula to figure out the:

adjusted energy

$$\text{Adjusted energy (megajoules)} = (A \times B) \times C$$

A = amount of fuel (unit in gallon, standard cubic feet, kilowatt hour, or kilogram)

B = energy density of fuel in Table 6 (megajoules/unit)

C = energy economy ratio value in Table 7 (gasoline) or Table 8 (diesel) (unit-less value)

- (b) Step 2.

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Use this formula to figure out the:

carbon intensity difference in carbon dioxide equivalent

$$(gCO_2e) = D - E$$

D = Clean Fuel Standard for gasoline and gasoline substitutes (Table 1) or
Clean Fuel Standard for diesel fuel and diesel fuel substitutes (Table 2)
(grams of carbon dioxide equivalent)

E = fuel's carbon intensity value approved through Online Registration
(grams of carbon dioxide equivalent)

(c) Step 3.

Use this formula to figure out the:

metric tons of carbon dioxide equivalent (gCO₂e)

$$[(\text{Step 1 answer}) \times (\text{Step 2 answer } gCO_2e)] \times \frac{1 \text{ metric ton}}{1,000,000 \text{ gCO}_2e}$$

(3) If the answer to Step 2 is:

- (a) A positive number, then credits were generated.
- (b) A negative number, then there is a deficit (negative balance) in the account.

(4) Generation of credits.

- (a) Each quarter the total number of credits generated through the supply of fuels or blendstocks with a Clean Fuel Standard below the applicable standard, will be deposited in the appropriate credit account.
- (b) Once banked, credits may be:
 - (i) Retained indefinitely.
 - (ii) Retired to meet a compliance obligation.
 - (iii) Transferred to another regulated party or credit generator.
- (c) No retroactive credit generation.
 - (i) No credits may be generated or claimed for a quarter in which the reporting deadline has passed.

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- (ii) Notwithstanding this section, Ecology may convert provisional credits to fully transferrable credits at any time.
 - (d) Provisional credits.
 - (i) Provisional credits where an application or pathway demonstration has been completed but not yet approved:
 - (A) The applicant may report information supporting provisional credits or deficits. The Online Registration System will reflect this information.
 - (B) Provisional credits may not be used for any purpose until fully recognized.
 - (ii) Provisional credits where Ecology approves an application or pathway demonstration: Ecology will recognize provisional credits generated:
 - (A) During the quarter in which the approval takes place; and
 - (B) One previous quarter if the application was complete during that previous quarter.
 - (e) Ecology may assign a unique identification number to each credit. Ecology must assign identification at the time of credit creation or credit transfer.
 - (f) Credits are subject to review and audit by Ecology, and credits may be reversed or adjusted as necessary.
- (5) Acquisition of credits to meet compliance obligation.
- (a) The extended credit acquisition period is January 1 to March 31.
 - (i) A regulated party may acquire additional credits to meet the compliance obligation of the year immediately before this period.
 - (ii) All credit transfers must be initiated in the Online Registration System by March 31 and completed by April 15 to be valid for meeting the compliance obligation of the year immediately prior.
 - (b) Use of credits acquired between January 1 and March 31.
 - (i) A credit existing before this period may be acquired to meet the compliance obligation of the year immediately prior.

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- (ii) A credit generated during this period must not be used to meet a compliance obligation of a previous year.
- (c) A regulated party electing to use credits acquired during this period must:
 - (i) Identify in their Annual Compliance Report how many credits were acquired and the source of these credits; and
 - (ii) Acquire and retire a sufficient amount of credits to meet 100 percent of their compliance obligation in the prior compliance year.

Credit basics.

(1) General.

- (a) Clean fuel credits are a regulatory instrument and do not constitute personal property, instruments, securities or any other form of property.
- (b) A regulated party and credit generator may:
 - (i) Retain clean fuel credits without expiration for use within the Clean Fuel Standard Program, subject to this rule; and
 - (ii) Acquire or transfer credits from or to other regulated parties and credit generators that are registered under the Online registration section.
- (c) A regulated party and a credit generator may not:
 - (i) Use alleged credits that have not been generated in compliance with this chapter; or
 - (ii) Borrow or use anticipated credits from future projected or planned carbon intensity reductions.

(2) Mandatory retirement of credits.

- (a) At the end of an annual compliance period, a regulated party must retire a sufficient number of credits to satisfy their obligation for that compliance period.
- (b) A regulated party with any remaining negative balance (deficit) may not carry over credits to the next compliance period.

(3) Credit transfers between parties.

- (a) A “credit seller” means someone who wants to sell or transfer credits. A “credit buyer” means someone who wants to purchase or acquire credits.

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- (b) A credit seller and a credit buyer may enter into an agreement to transfer credits.
- (c) A credit seller may transfer credits provided the number of credits to be transferred does not exceed the number of total credits in their Online Registration System account.

(4) **Credit transfer form.**

- (a) A credit seller and buyer must use the “Credit Transfer Form” in the Online Registration System to document a credit transfer agreement. The Online Registration System will capture the electronic signatures from the buyer and seller and archive the completed form.
- (b) The credit transfer agreement must include the following:
 - (i) Date of the proposed credit transfer agreement;
 - (ii) Name and federal employer identification numbers (FEIN) of the credit seller and credit buyer;
 - (iii) Name and contact information of the person that made the transaction for the credit seller and credit buyer;
 - (iv) The number of credits proposed to be transferred and the credit identification numbers, if assigned; and
 - (v) The price or equivalent value of the consideration (in U.S. dollars) to be paid per metric ton of credit proposed for transfer, excluding any fees.
- (c) Within 15 days from the date the credit seller posts the credit transfer form in the Online Registration System, the credit buyer must confirm the accuracy of the information contained in the form by electronically signing and dating the form.

(5) **Broker.**

- (a) A credit seller or a credit buyer may choose to use a broker to transfer credit(s).
- (b) A broker cannot own or otherwise exercise control over credits.
- (c) The use of a broker is allowed under the following conditions:
 - (i) The broker must register in the Online Registration System and comply with the registration requirements;

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- (ii) The credit buyer and the credit seller must approve the use of the broker on their behalf through the Online Registration System; and
- (iii) A broker may conduct a “blind transaction” where they credit buyer and the credit seller do not know the identity of the other. Both parties must agree to this arrangement.

(6) Illegal credits.

- (a) If a registered party reports credit(s) that do not meet the requirements of this rule, then the party violates this rule and is subject to enforcement.
- (b) If Ecology determines that credit(s) do not meet the requirements of this rule, then the registered party must provide an approved credit to replace the improperly generated credit.
- (c) A regulated party or credit generator that acquired illegal credit(s) is in violation of this rule unless Ecology determines:
 - (i) The credits were acquired from a registered party with an Online Registration System account; and
 - (ii) The carbon intensity value of the fuel for which the credits were generated matches the carbon intensity value approved by Ecology for that fuel pathway.

(7) Public disclosure.

- (a) Program status report.

Ecology must publish a quarterly report that summarizes the aggregate credit and negative balance generation for the:

- (i) Most recent quarter;
- (ii) Past quarters of the current compliance period; and
- (iii) Past compliance periods.

- (b) Program credit report.

Ecology must publish a monthly report that summarizes the aggregate credit transfer information for the:

- (i) Most recent month;

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- (ii) Past months of the current compliance period; and
 - (iii) Past compliance periods.
- (c) Information in the Online Registration System will provide the basis for Ecology's reports.
- (d) Ecology's reports will represent information aggregated for all fuel transacted within the state, not by individual parties.

Provisions for increases in the carbon intensity of crude oil.

- (1) Each year Ecology must calculate the baseline carbon intensity of crude oil supplied as petroleum feedstock to Washington refineries.
- (2) If the carbon intensity of crude oil increases, deficits for gasoline blendstock and/or diesel fuel must be added to each affected regulated party's compliance obligation for the upcoming year.
- (3) Process for calculating the annual crude average carbon intensity value.
 - (a) Ecology must calculate an annual crude average carbon intensity value for each calendar year using a volume-weighted average of individual crude carbon intensity values.
 - (b) The volume for each crude will be the total volume of that crude reported by all regulated parties in their Annual Compliance Reports for the previous calendar year.
 - (c) Individual crude carbon intensity values are located in Carbon intensity lookup table for crude oil production and transport (Table 9).
 - (d) For a crude name not listed, Ecology must use the "baseline crude average" in Carbon intensity lookup table for crude oil production and transport (Table 9).
 - (e) The average must be calculated based on the most recent three years data except for:
 - (i) Compliance year 2016: use data from compliance year 2016.
 - (ii) Compliance year 2017: use data from compliance year 2016 and 2017.
 - (f) The number of deficits must be based upon the amount of gasoline blendstock and diesel fuel supplied by the regulated party in the compliance period.
- (4) Public notice on annual crude average carbon intensity value.

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- (a) Within 15 days of receiving the Annual Compliance Reports, Ecology must post the annual crude average carbon intensity calculation at the Ecology website for public comment.
- (b) The comment period must be 15 calendar days following the date on which the analysis was posted.
- (c) Ecology must only consider comments related to potential factual or methodological errors in the posted annual crude average carbon intensity value.
- (d) Ecology must evaluate the comments received.
 - (i) Ecology may request in writing additional information or clarification from commenters.
 - (ii) Commenters must have 10 days to respond to these requests.
- (e) Ecology must post the final annual crude average carbon intensity value on the Ecology website:
 - (i) If no comments are received: within 15 days of the end of the comment period.
 - (ii) If comments are received: within 15 days of receiving additional information or clarification as requested by Ecology.

Credit Clearance Market.

- (1) Credit Clearance Market overview.
 - (a) A Credit Clearance Market is not the routine operation where regulated parties and credit generators exchange credits throughout the year.
 - (b) A Credit Clearance Market is a special market called by Ecology to allow a regulated party who fails to comply with an Annual Compliance Obligation to be in compliance when the party meets certain requirements.
- (2) Regulated party requirements.
 - (a) A regulated party who fails to comply with an Annual Compliance Obligation must participate in a Credit Clearance Market.
 - (b) If a Credit Clearance Market occurs, the regulated party must:

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- (i) Acquire in the Credit Clearance Market the number of Clearance Market Credits specified by Ecology;
 - (ii) Retire the Clearance Market Credits by July 31 of the year after the compliance year in question; and
 - (iii) Retire the remaining balance of its Annual Compliance Obligation, with interest, in five years.
- (c) If no Credit Clearance Market occurs:
 - (i) Ecology will record any unmet compliance obligation in the regulated parties Accumulated Deficits account.
 - (ii) The regulated party will be considered in compliance for that year if the party retires the Accumulated Deficit balance, with interest, within five years.
- (3) Use of “Clearance Market” Credits.
 - (a) The Online Registration System must identify a credit acquired from the Credit Clearance Market as a “Clearance Market” Credit.
 - (b) A Clearance Market Credit can only be used to meet the regulated party’s Annual Compliance Obligation from an immediately prior year.
 - (c) A credit generated on January 1 to March 31 cannot be used to meet compliance requirements for the previous year.
- (4) Procedure for selling in the Credit Clearance Market.
 - (a) Call for credits.
 - (i) Ecology will publish the maximum price for credits for the year (i.e., credit price plus inflation).
 - (ii) Ecology must issue a call for credits to be pledged for sale in the Credit Clearance Market on April 1.
 - (iii) A party wanting to pledge credits for sale in the Credit Clearance Market must report the quantity of credits they are pledging in their Annual Compliance Report, due by April 30.
 - (b) Calculating the maximum price for credits.

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The maximum price for credits acquired, purchased, or transferred in the Credit Clearance Market must be set by the following formula:

- (i) First year of program: \$XXX / credit (MT/CO₂e).
 - (ii) In each subsequent year, this price must be adjusted by a rate of inflation. This allows the credit price to keep pace with inflation and remain at a constant price, in real terms.
 - (iii) The rate of inflation must be measured by the Consumer Price Index for All Urban Consumers for the previous year.
- (c) Applicability.
- (i) Any party demonstrating compliance in their Annual Compliance Report for the prior year is eligible to pledge credits for sale in the Credit Clearance Market.
 - (ii) Regulated parties with an Accumulated Deficit obligation cannot pledge credits for sale in the Credit Clearance Market.
- (d) Rules governing credits pledged for sale.

By pledging credits for sale in the Credit Clearance Market, the party agrees to:

- (i) Sell or transfer credits at or below a pre-established maximum price.
 - (ii) Not reject an offer to purchase a pledged Clearance Market Credit at the maximum price.
 - (iii) Withhold those credits from sale on the regular credit market until;
 - (A) Ecology determines whether a Credit Clearance Market will be held by May 15; or
 - (B) If a Credit Clearance Market is held until August 1.
 - (iv) Ecology will announce whether a Credit Clearance Market will occur by May 15 of each year.
- (5) Credit Clearance Market operations.
- (a) Notification.

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Ecology will notify each regulated party that failed to meet its Annual Compliance Obligation of the pro-rata share of Clearance Market Credits available in the Credit Clearance Market by June 1.

- (b) Calculation of pro-rata shares.

Each regulated party's pro-rata share of Clearance Market Credits available in the Credit Clearance Market will be calculated by the following formula:

Regulated Party A's pro rata share =

$$\left| \frac{\text{A's Deficit}}{(\text{Total Deficits})} \right| \times [\text{lesser of: (Pledged Credits) or (Total Deficits)}]$$

Where:

“Deficit” means one regulated party's obligation for the compliance year that has not been met in the Annual Compliance Report.

“Total Deficits” means the sum of all regulated parties' compliance obligations for the compliance year that have not been met in the Annual Compliance Report.

“Pledged Credits” means the sum of all credits pledged to the Credit Clearance Market.

- (c) Publishing a list of participants.

Ecology will publish the following information by June 1:

- (i) The name of each party that did not meet its obligation in the Annual Compliance Report;
 - (ii) The number of credits that each party is obligated to acquire as their pro-rate share; and
 - (iii) The name of each party that pledged credits for sale in the Credit Clearance Market and the number of credits each pledged.
- (d) A Credit Clearance Market will operate June 1 to July 31.
- (e) The Online Registration System must identify a credit acquired from the Credit Clearance Market as a “Clearance Market” Credit.
- (f) Amended Annual Compliance Report.

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- (i) Regulated parties that purchased or acquired Clearance Market Credits must submit an Amended Annual Compliance Report by August 31.
 - (ii) The report must account for the following:
 - (A) The acquisition and retirement of their pro-rata share of Clearance Market Credits; and
 - (B) All deficits carried over as Accumulated Deficits.
 - (g) Accumulated Deficits.

Ecology must record remaining unmet deficits from a compliance year in an Accumulated Deficit account for the regulated party when the regulated party purchased and retired its pro-rata share of Clearance Market Credits.
- (6) Rules governing Accumulated Deficits.
 - (a) Compound interest on Accumulated Deficits.
 - (i) A regulated party with an Accumulated Deficit will be charged interest to be applied annually to all deficits in a regulated party's Accumulated Deficit account.
 - (ii) Interest will be applied in terms of additional deficits that must be retired in 5 years:
 - (A) At a rate of 5 percent annually; and
 - (B) Applied on each January 1, 366 days after the pertinent compliance year ended.
 - (b) Repayment of Accumulated Deficits.

A regulated party that participates in the Credit Clearance Market to meet their compliance obligations must repay all unmet deficits, plus interest no later than five years from the end of the compliance period in which this deficit was incurred.
 - (c) Prohibitions of credit transfers.

A regulated party that has an Accumulated Deficit obligation cannot transfer or sell credits to another regulated party.

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OBTAINING AND USING FUEL PATHWAYS

Fuel carbon intensity values.

(1) **Carbon intensity value.**

A regulated party and credit generator must use the carbon intensity value in the Carbon intensity lookup table for gasoline and gasoline substitutes (Table 3) or in the Carbon intensity lookup table for diesel fuel and diesel fuel substitutes (Table 4) that best matches the description in their fuel pathway.

(2) **Individual carbon intensity value.**

(a) Credit generator request.

A credit generator may petition Ecology for approval of an individual carbon intensity value under the following conditions:

(i) There is no approved pathway in the:

(A) Carbon intensity lookup table for gasoline and gasoline substitutes (Table 3) or in the Carbon Intensity Lookup Table for Diesel Fuel and the Carbon intensity lookup table for diesel fuel and diesel fuel substitutes (Table 4); and

(B) California approved fuel pathway.

(ii) The credit generator wants to modify an approved pathway to apply utility-specific energy inputs:

(A) The utility must provide the mix of fuels used to generate the electricity sold to the credit generator.

(B) The pathway must be modified using WA-GREET 2013.

(b) Directed by Ecology.

Regulated parties and credit generators must obtain an individual carbon intensity value for a fuel if Ecology:

(i) Determines the fuel's carbon intensity is not adequately represented by any of the carbon intensity values for established pathways in the Carbon intensity lookup table for gasoline and gasoline substitutes (Table 3) or in the Carbon intensity lookup table for diesel fuel and diesel fuel substitutes (Table 4); and

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- (ii) Directs the entity to obtain an individual carbon intensity value.
- (c) Process change notification.

When a fuel's carbon intensity value changes by more than 5.0 gCO₂e per MJ or 20 percent, whichever is greater, due to a refining process change, the regulated party or credit generator must:

- (i) Notify Ecology; and
 - (ii) Submit a modification for a new carbon intensity value within 30 days of the change(s).
- (3) **Fuels with indeterminate carbon intensity values.**
- (a) A regulated party who is unable to determine the carbon intensity of the fuel may petition Ecology to use a default carbon intensity value.
 - (b) Ecology may grant permission to use the applicable default value in (c) of this subsection if the following occur:
 - (i) The production facility cannot be identified; or
 - (ii) The production facility is known but no carbon intensity value for the production facility has been determined.
 - (c) Washington default carbon intensity values are stated below and included in Table 3 and Table 4.

Fuel type	Carbon Intensity Value	Pathway Identifier	Reference
Gasoline blendstock	100.7	WAG-01	Table 3
Gasoline	99.9	WAG-02	
Diesel-ULSD	101.7	WAD-01	Table 4
Diesel-ULSD blended	101.6	WAD-02	

(4) **WA-GREET 2013.**

- (a) Regulated parties and credit generators must calculate an individual carbon intensity value using WA-GREET 2013.

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- (b) If a fuel cannot be modeled with WA-GREET 2013, a comparable model approved by Ecology can be substituted.
 - (c) Any variation from the approved version of WA-GREET 2013 must be documented and submitted to Ecology for approval.
- (5) All parties registered under this rule must provide the carbon intensity value of their fuel when requested from an entity subject to regulation under a similar program in another state or Canadian province.

Approval process for individual carbon intensity values.

(1) Individual carbon intensity value approval.

A regulated party and a credit generator may not use an individual carbon intensity value without written Ecology approval.

(a) WA-GREET 2013 input modifications.

To obtain an individual carbon intensity value, a regulated party or a credit generator may propose modification(s) to inputs into WA-GREET 2013 that more accurately reflect the specific characteristics of the fuel.

(b) WA-GREET 2013 model modifications.

To obtain an individual carbon intensity value, a regulated party or credit generator may propose modification(s) to the WA-GREET 2013. The proposal for an individual carbon intensity value must include:

- (i) Inputs used to generate the carbon intensity values; and
- (ii) All modified WA-GREET 2013 parameters used to generate the new fuel carbon intensity value.

(c) Non-WA-GREET 2013 modifications.

To obtain an individual carbon intensity value, a regulated party or credit generator may propose modification(s) based on any lifecycle assessment model other than WA-GREET 2013. The proposal for an individual carbon intensity value must include:

- (i) Inputs used to generate the carbon intensity values under the section “Fuels used to generate carbon intensity values”; and
- (ii) All parameters used to generate the new fuel carbon intensity value.

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(2) **Reliability.**

The regulated party or credit generator must supply documentation necessary for Ecology to determine that the method used to calculate the individual carbon intensity value is reliable and comparable to WA-GREET 2013.

(3) **Modification submittal.**

The regulated party or credit generator must submit all proposed modifications under this rule electronically including:

- (a) WA-GREET 2013 input change(s);
- (b) California approval of the proposed pathway or indirect land use change;
- (c) Modifications required for subsection (1);
- (d) Supporting data and calculations; and
- (e) Any other information Ecology may need to verify the method for calculating the proposed individual carbon intensity value.

(4) **Review process.**

Within 30 business days after receipt of the proposed modification(s), Ecology must determine whether the proposal is complete.

- (a) If Ecology determines the proposal is incomplete, Ecology must notify the party and identify the deficiencies.
- (b) If the party submits supplemental information, Ecology has 30 business days to determine if the supplemental submittal is complete, or notify the party and identify the deficiencies.
- (c) If Ecology determines the proposal is complete, Ecology must:
 - (i) Publish the application on the Clean Fuel Standard program website.
 - (ii) Notify the party of approval or denial of an individual carbon intensity value.

(5) **Ecology approval.**

A regulated party or credit generator may use an individual carbon intensity value after receiving written approval from Ecology.

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(6) Ecology denial.

If Ecology determines the proposal for an individual carbon intensity value is not adequately documented in accordance with (1)(b), (1)(c) and (2) above, Ecology must:

- (a) Deny the modification;
- (b) Identify the basis for the denial; and
- (c) Notify the party which carbon intensity value it is authorized to use.

Physical pathway approval.

- (1) A regulated party or credit generator must demonstrate that a physical pathway exists for each transportation fuel and blendstock.
- (2) A regulated party or credit generator may generate credits when Ecology approves a physical pathway for a transportation fuel and blendstock.
- (3) The demonstration must include the following requirements:
 - (a) Delivery methods comprising the physical pathway for each of the fuels. The demonstration must include:
 - (i) Documentation in sufficient detail for Ecology to verify the existence of the physical pathway's delivery methods; and
 - (ii) Map(s) with truck/rail lines or routes, pipelines, transmission lines, and other delivery methods (segments) that, together, comprise the physical pathway.
 - (A) If more than one company is involved in the delivery, each segment on the map must be linked to a specific company that is expected to transport the fuel through each segment of the physical pathway.
 - (B) The regulated party must provide the contact information for each company, including the contact name, mailing address, phone number, and company name.
 - (b) Fuel introduced into the physical pathway.
 - (i) For each blendstock or alternative fuel for which credit is being claimed, provide evidence showing that a specific volume of that blendstock or fuel was introduced by its provider into the physical pathway.

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- (ii) The evidence may include, but is not limited to, a written purchase contract or transfer document for the volume of blendstock or alternative fuel that was introduced or otherwise delivered into the physical pathway.
- (c) Fuel removed from the physical pathway.
 - (i) For each specific volume of blendstock or alternative fuel identified, provide evidence showing that the same volume of blendstock or fuel was removed from the physical pathway in Washington by the regulated party and provided for transportation use in Washington.
 - (ii) The evidence may include, but is not limited to, a written sales contract or transfer document for the volume of blendstock or alternative fuel that was removed from or otherwise extracted out of the physical pathway in Washington.
- (4) Subsequent demonstration of physical pathway.
 - (a) What is an example of a change in the basic mode of transport?
An example of a change in the basic mode of transport is adding to or replacing an approved rail transport pathway with truck or ship transport.
 - (b) When there is a change in the basic mode of transport for the fuel in the approved pathway, the regulated party or credit generator must:
 - (i) Notify Ecology in writing within 30 business days after the change has occurred; and
 - (ii) Submit new demonstration that includes change(s) to the physical pathway.
 - (c) If the basic mode of transport for the fuel changed, the approved physical pathway becomes invalid 30 business days after the change occurred.
- (5) Submittal and review of and final action on submitted demonstrations.
 - (a) The regulated party may not receive credit for any fuel or blendstock until Ecology has approved the physical-pathway demonstration.
 - (b) Once Ecology approves the physical pathway, the regulated party or credit generator may claim credits calculated retroactive to the date when the regulated party's use of the pathway began, but no earlier than the year the complete program started in Washington.

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- (c) Within 15 business days of receipt of a physical pathway demonstration, Ecology must determine if the physical pathway demonstration is complete and notify the applicant.
 - (i) If incomplete, the Ecology notification must include deficiencies in the demonstrations.
 - (ii) Within 15 days of determining the demonstrations to be complete, Ecology must take final action to either approve or disapprove the demonstration; and notify the regulated party.
 - (iii) A regulated party or credit generator may use an individual carbon intensity value after receiving written approval from Ecology the final action.

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OTHER.

Severability.

Each section and subsection of this chapter shall be deemed severable, and in the event that any part is held to be invalid, the remainder of the section shall continue in full force and effect.

Public disclosure.

(Placeholder

Violations and penalties.

- (1) Violations may be subject to the provisions of RCW [70.94.431](#) (civil penalty provision).
- (2) Penalties issued under RCW [70.94.431](#) may be appealed to the pollution control hearing board under Chapter [43.21B](#) RCW and Chapter [371-08](#) WAC.

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TABLES.

Table 1

Clean Fuel Standard for gasoline and gasoline substitutes¹

Calendar Year	Clean Fuel Standard (gCO ₂ e per MJ)	Percent Reduction
2016	None ²	None
2017	99.65	0.25%
2018	99.40	0.50%
2019	98.90	1%
2020	98.40	1.50%
2021	97.40	3%
2022	96.40	4%
2023	94.91	5%
2024	93.41	6%
2025	91.91	8%
2026 and beyond	89.91	10%

1. Motor gasoline in 2012 contained 9.72% denatured ethanol by volume (6.68% by energy).

2. Gasoline baseline is 99.90.

Table 2

Clean Fuel Standard for diesel fuel and diesel fuel substitutes¹

Calendar Year	Clean Fuel Standard (gCO ₂ e per MJ)	Percent Reduction
2016	None ²	None
2017	101.35	0.25%
2018	101.09	1%
2019	100.58	1%
2020	100.08	2%
2021	99.06	2%
2022	98.04	4%
2023	96.52	5%
2024	95.00	6%
2025	93.47	8%
2026 and beyond	91.44	10%

1. On-road diesel in 2012 contained 0.22% biodiesel by volume (0.20% by energy).

2. Diesel fuel baseline is 101.60.

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Gasoline	WAG01	Gasoline blendstock - weighted average of gasoline supplied by Washington, Montana and Utah refineries	100.7	0	100.7
	WAG02	Gasoline - gasoline blended with 9.72% denatured ethanol by volume	99.9	0	99.9
Ethanol from Corn	ETHC001	Midwest average; 80% Dry Mill; 20% Wet Mill; Dry DGS; NG	69.4	30	99.4
	ETHC002	California average; 80% Midwest Average; 20% California; Dry Mill; Wet DGS; NG	65.66	30	95.66
	ETHC003	California; Dry Mill; Wet DGS; NG	50.7	30	80.7
	ETHC004	Midwest; Dry Mill; Dry DGS, NG	68.4	30	98.4
	ETHC005	Midwest; Wet Mill, 60% NG, 40% coal	75.1	30	105.1
	ETHC006	Midwest; Wet Mill, 100% NG	64.52	30	94.52
	ETHC007	Midwest; Wet Mill, 100% coal	90.99	30	120.99
	ETHC008	Midwest; Dry Mill; Wet, DGS; NG	60.1	30	90.1
	ETHC009	California; Dry Mill; Dry DGS, NG	58.9	30	88.9
	ETHC010	Midwest; Dry Mill; Dry DGS; 80% NG; 20% Biomass	63.6	30	93.6
	ETHC011	Midwest; Dry Mill; Wet DGS; 80% NG; 20% Biomass	56.8	30	86.8
	ETHC012	California; Dry Mill; Dry DGS; 80% NG; 20% Biomass	54.2	30	84.2
	ETHC013	California; Dry Mill; Wet DGS; 80% NG; 20% Biomass	47.44	30	77.44
	ETHC014	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Coal use not to exceed 71% of fuel use (by energy); Coal carbon content not to exceed 48%	60.99	30	90.99

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Ethanol from Corn	ETHC015	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 5% of the fuel use (by energy); Coal use not to exceed 66% of fuel use (by energy); Coal carbon content not to exceed 48%	59.08	30	89.08
	ETHC016	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 10% of the fuel use (by energy); Coal use not to exceed 60% of fuel use (by energy); Coal carbon content not to exceed 48%	57.16	30	87.16
	ETHC017	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 15% of the fuel use (by energy); Coal use not to exceed 54% of fuel use (by energy); Coal carbon content not to exceed 48%	55.24	30	85.24
	ETHC018	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Coal use not to exceed 71% of fuel use (by energy); Coal carbon content not to exceed 48%	59.8	30	89.8

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Ethanol from Corn	ETHC019	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 5% of the fuel use (by energy); Coal use not to exceed 65% of fuel use (by energy); Coal carbon content not to exceed 48%	57.86	30	87.86
	ETHC020	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 10% of the fuel use (by energy); Coal use not to exceed 59% of fuel use (by energy); Coal carbon content not to exceed 48%.	55.91	30	85.91
	ETHC021	2B Application*: Midwest; Dry Mill; Plant energy use not to exceed a value the applicant classifies as confidential; No grid electricity use; Biomass must be at least 15% of the fuel use (by energy); Coal use not to exceed 53% of fuel use (by energy); Coal carbon content not to exceed 48%	53.96	30	83.96
	ETHC022	2A Application*: Midwest; Dry Mill; 15% Dry DGS, 85% Partially Dry DGS; NG; Plant energy use not to exceed a value the applicant classifies as confidential	57.16	30	87.16
	ETHC023	2A Application*: Midwest; Dry Mill; Partially Dry DGS; NG; Plant energy use not to exceed a value the applicant classifies as confidential	54.29	30	84.29

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Ethanol from Corn	ETHC024	2A Application*: Midwest; Dry Mill; 75% Dry DGS, 25% Wet DGS; NG; Plant energy use not to exceed a value the applicant classifies as confidential	61.6	30	91.6
	ETHC025	2A Application*: Dry Mill; Dry DGS; Raw starch hydrolysis; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	62.44	30	92.44
	ETHC026	2A Application*: Dry Mill; Dry DGS; Raw starch hydrolysis/ combined heat and power; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	58.49	30	88.49
	ETHC027	2A Application*: Dry Mill; Dry DGS; Raw starch hydrolysis/biomass & landfill gas fuels; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	58.5	30	88.5
	ETHC028	2A Application*: Dry Mill; Dry DGS; Raw starch hydrolysis/corn fractionation; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	61.66	30	91.66
	ETHC029	2A Application*: Dry Mill; Dry DGS; Conventional cook/combined heat and power; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	60.52	30	90.52

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Ethanol from Corn	ETHC030	2A Application*: Dry Mill; Dry DGS; Raw starch hydrolysis/biogas process fuel; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	44.7	30	74.7
	ETHC031	2A Application*: Dry Mill; Wet DGS; Raw starch hydrolysis; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	53.69	30	83.69
	ETHC032	2A Application*: Dry Mill; Wet DGS; Raw starch hydrolysis/ combined heat and power; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	50.01	30	80.01
	ETHC033	2A Application*: Dry Mill; Wet DGS; Raw starch hydrolysis/corn fractionation; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	50.26	30	80.26
	ETHC034	2A Application*: Dry Mill; Wet DGS; Conventional cook/combined heat and power; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	50.47	30	80.47
	ETHC035	2A Application*: Dry Mill; Wet DGS; Raw starch hydrolysis/biogas process fuel; Amount and type of fuel use, and amount of grid electricity use not to exceed a value the applicant classifies as confidential	43.21	30	73.21

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Ethanol from Sugarcane	ETHS001	Brazilian sugarcane using average production processes	27.4	46	73.4
	ETHS002	Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit	12.4	46	58.4
	ETHS003	Brazilian sugarcane with average production process and electricity co-product credit	20.4	46	66.4
	ETHS004	2B Application*: Brazilian sugarcane processed in the CBI with average production process; Thermal process power supplied with NG	32.94	46	78.94
	ETHS005	2B Application*: Brazilian sugarcane processed in the CBI with average production process, mechanized harvesting and electricity co-product credit; Thermal process power supplied with NG	17.94	46	63.94
	ETHS006	2B Application*: Brazilian sugarcane processed in the CBI with average production process and electricity co-product credit; Thermal process power supplied with NG	25.94	46	71.94
Compressed Natural Gas	CNG001	California NG via pipeline; compressed in CA	67.7	0	67.7
	CNG002	North American NG delivered via pipeline; compressed in CA	68	0	68
Compressed Natural Gas	CNG003	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	CNG004	Dairy Digester Biogas to CNG	13.45	0	13.45
Liquefied Natural Gas	LNG001	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	LNG002	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Liquefied Natural Gas	LNG003	Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA using liquefaction with 80% efficiency	93.37	0	93.37
	LNG004	Overseas-sourced LNG delivered as LNG to CA; re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62
	LNG005	Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA	77.5	0	77.5
	LNG006	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	LNG007	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56
	LNG008	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	LNG009	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 90% efficiency	17.78	0	17.78
Electricity	ELC001	California average electricity mix	124.1	0	124.1
	ELC002	California marginal electricity mix of natural gas and renewable energy sources	104.71	0	104.71
Hydrogen	HYGN001	Compressed H2 from central reforming of NG (includes liquefaction and re-gasification steps)	142.2	0	142.2
	HYGN002	Liquid H2 from central reforming of NG	133	0	133
	HYGN003	Compressed H2 from central reforming of NG (no liquefaction and re-gasification steps)	98.8	0	98.8
	HYGN004	Compressed H2 from on-site reforming of NG	98.3	0	98.3

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Table 3

Carbon intensity lookup table for gasoline and gasoline substitutes

Fuel	Pathway Identifier	Pathway Description (* specific conditions apply)	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Hydrogen	HYGN005	Compressed H2 from on-site reforming with renewable feedstocks	76.1	0	76.1

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Table 4
Carbon intensity lookup table for diesel fuel and diesel fuel substitutes

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Diesel	WAD01	ULSD - weighted average of diesel supplied by Washington, Montana and Utah refineries	100.7	0	100.7
	WAD02	Diesel - ULSD blended with 0.22% biodiesel by volume	99.9	0	99.9
	ULSD001	ULSD - based on the average crude oil supplied to California refineries and average California refinery efficiencies	98.03	0	98.03
Biodiesel	BIOD002	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is required	15.84	0	15.84
	BIOD003	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is not required	11.76	0	11.76
	BIOD001	Conversion of Midwest soybeans to biodiesel (fatty acid methyl esters - FAME)	21.25	62	83.25
	BIOD004	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is required. Fuel produced in the Midwest	18.72	0	18.72
	BIOD005	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is not required. Fuel produced in the Midwest	13.83	0	13.83
	BIOD007	Conversion of corn oil, extracted from distillers grains prior to the drying process, to biodiesel	4.00	0	4.00

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Table 4
Carbon intensity lookup table for diesel fuel and diesel fuel substitutes

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Renewable Diesel	RNWD002	Conversion of tallow to renewable diesel using higher energy use for rendering	39.33	0	39.33
Renewable Diesel	RNWD003	Conversion of tallow to renewable diesel using lower energy use for rendering	19.65	0	19.65
	RNWD001	Conversion of Midwest soybeans to renewable diesel	20.16	62	82.16
Compressed Natural Gas	CNG001	California NG via pipeline; compressed in CA	67.70	0	67.70
	CNG002	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	CNG003	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	CNG004	Dairy Digester Biogas to CNG	13.45	0	13.45
Liquefied Natural Gas	LNG001	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	LNG002	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38
	LNG003	Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA using liquefaction with 80% efficiency	93.37	0	93.37
	LNG004	Overseas-sourced LNG delivered as LNG to CA; re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62

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Table 4
Carbon intensity lookup table for diesel fuel and diesel fuel substitutes

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO ₂ e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Liquefied Natural Gas	LNG005	Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA	77.50	0	77.50
	LNG006	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	LNG007	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56
	LNG008	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	LNG009	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 90% efficiency	17.78	0	17.78
Electricity	ELC001	California average electricity mix	124.10	0	124.10
	ELC002	California marginal electricity mix of natural gas and renewable energy sources	104.71	0	104.71
Hydrogen	HYGN001	Compressed H ₂ from central reforming of NG (includes liquefaction and re-gasification steps)	142.20	0	142.20
	HYGN002	Liquid H ₂ from central reforming of NG	133.00	0	133.00
	HYGN003	Compressed H ₂ from central reforming of NG (no liquefaction and re-gasification steps)	98.80	0	98.80
	HYGN004	Compressed H ₂ from on-site reforming of NG	98.30	0	98.30
	HYGN005	Compressed H ₂ from on-site reforming with renewable feedstocks	76.10	0	76.10

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Table 5
Summary Checklist of Reporting Requirements

Parameters to Report	Gasoline & Diesel Fuel	Ethanol or Biomass- Based Diesel Fuel	CNG, LNG, & LPG	Electricity	Hydrogen or Hydrogen Blends
Quarterly Progress Reporting Requirements					
Company or organization name	x	x	x	x	x
Reporting period	x	x	x	x	x
Fuel pathway code	x	x	x	x	x
Transaction type	x	x	x	x	x
Transaction date	x	x	x	x	x
Business partner	x	x	x	x	x
Production company ID and facility ID	n/a	x	n/a	n/a	x
Physical transport mode code	x	x	x	x	x
Aggregation	x	x	x	x	x
Application / energy economy ratio	x	x	x	x	x
Volume of each blendstock (gallons)	x	n/a	n/a	n/a	n/a
MCON or other crude oil name designation, volume (in gal), and country (or state) of origin for each crude supplied to the refinery	x	n/a	n/a	n/a	n/a
Amount of each fuel used as gasoline replacement	x	x	x	x	x
Amount of each fuel used as diesel fuel replacement	x	x	x	x	x
*Credits or deficits generated per quarter (MT)	x	x	x	x	x
Annual Compliance Reporting (in addition to the items above)					
* Credits and deficits generated per year (MT)	x	x	x	x	x
*Credits or deficits carried over from previous year (MT), if any	x	x	x	x	x
*Credits acquired from another party (MT), if any	x	x	x	x	x
*Credits sold to another party (MT), if any	x	x	x	x	x
*Credits retired (MT) to meet compliance obligation, if any	x	x	x	x	X

*Value will be calculated and stored in the Online Registration System.

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Table 6
Energy densities of fuels

Fuel (units)	Energy Density
Washington blendstock (gallon)	122.5 (megajoule/gallon)
Diesel - ULSD (gallon)	136.60 (megajoule/gallon)
Diesel - Fatty acid methyl ester (gallon)	126.13 (megajoule/gallon)
CNG (standard cubic feet)	0.98 (megajoule/standard cubic feet)
LNG (gallon)	78.83 (megajoule/gallon)
Electricity (kilowatt-hour)	3.60 (megajoule/kilowatt-hour)
Hydrogen (kilogram)	120.00 (megajoule/kilogram)
Denatured Ethanol (gallon)	81.51 (megajoule/gallon)

¹ Energy density factors are based on the lower heating values of fuels using BTU to MJ conversion of 1055 J/Btu.

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Table 7

Energy economy ratio values for fuels used as gasoline substitutes

Light/Medium-Duty Applications	
Fuel/Vehicle Combination	Energy Economy Ratio Value Relative to Gasoline
Gasoline or any ethanol blend	1.0
Compressed Natural Gas (CNG) Internal Combustion Engine Vehicle	1.0
Electricity: Battery Electric Vehicle Plug-In Hybrid Electric Vehicle	3.4
Hydrogen or Fuel Cell Vehicle	2.5

Table 8

Energy economy ratio values for fuels used as diesel substitutes

Heavy-Duty or Off-Road Applications	
Fuel/Vehicle Combination	Energy Economy Ratio Value Relative to Gasoline
Diesel fuel or biomass-based diesel blends	1.0
Spark-ignition engines: Compressed Natural Gas (CNG) Liquefied Natural Gas (LNG)	0.9
Compression-ignition engines: Compressed Natural Gas (CNG) Liquefied Natural Gas (LNG)	1.0
Electricity: Truck Battery Electric Vehicle Plug-In Hybrid Electric Vehicle	2.7
Electricity: Bus Battery Electric Vehicle Plug-In Hybrid Electric Vehicle	4.2
Hydrogen or Fuel Cell Vehicle	1.9

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
Baseline Crude Average	Washington baseline crude average (2012)	13.90
Algeria	Saharan	11.69
Angola	Cabinda	10.03
	Dalia	9.78
	Gimboa	9.65
	Girassol	10.33
	Greater Plutonio	9.78
	Hungo	9.10
	Kissanje	9.65
	Mondo	9.80
	Nemba	10.19
	Pazflor	8.91
Argentina	Canadon Seco	9.28
	Escalante	9.30
	Hydra	8.08
	Medanito	9.98
Australia	Enfield	5.09
	Pyrenees	5.99
	Stybarrow	6.31
	Van Gogh	6.14
	Vincent	5.05
Azerbaijan	Azeri	8.25
Brazil	Albacora Leste	6.55
	Bijupira-Salema	8.08
	Frade	6.12
	Jubarte	8.37
	Lula	9.94
	Marlim	7.76
	Marlim Sul	8.49
	Ostra	6.54
	Polvo	6.39
	Roncador	7.44
	Roncador Heavy	7.09
	Sapinhua	8.53
Cameroon	Lokele	22.29
Canada	Access Western Blend	17.21

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Table 9
Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
Canada (cont'd.)	Albian Heavy Synthetic	20.52
	Albian Muskeg River Heavy	20.52
	BC Light	8.27
	Bonnie Glen	8.27
	Borealis Heavy Blend	18.32
	Boundary Lake	8.27
	Bow River	9.27
	Cardium	8.27
	Christina Dilbit Blend	14.04
	Christina Synbit	17.90
	Cold Lake	19.64
	Conventional Heavy	9.27
	CNRL Light Sweet Synthetic	21.39
	Federated	8.27
	Fosterton	9.27
	Gibson Light Sweet	8.27
	Halkirk	8.27
	Hardisty Light	8.27
	Hardisty Synthetic	36.96
	Husky Synthetic	36.62
	Joarcam	8.27
	Kerrobert Sweet	8.27
	Koch Alberta	8.27
	Light Sour Blend	8.27
	Light Sweet	8.27
	Lloyd Blend	9.27
	Lloyd Kerrobert	9.27
	Lloydminster	9.27
	Long Lake Heavy	32.04
	Long Lake Light Synthetic	37.29
	Mackay Heavy Blend	20.76
	Medium Gibson Sour	8.27
	Medium Sour Blend	8.27
	Midale	8.27
	Mixed Sour Blend	8.27
	Mixed Sweet	8.27

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Table 9
Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
Canada (cont'd.)	Moose Jaw Tops	8.27
	Peace	8.27
	Peace Pipe Sour	8.27
	Peace River Heavy	22.03
	Peace River Sour	8.27
	Pembina	8.27
	Pembina Light Sour	8.27
	Premium Albion Synthetic	21.39
	Premium Conventional Heavy	9.27
	Premium Synthetic	21.39
	Rainbow	8.27
	Rangeland Sweet	8.27
	Redwater	8.27
	Seal Heavy	9.27
	Shell Synthetic (all grades)	21.39
	Smiley-Coleville	9.27
	Sour High Edmonton	8.27
	Sour Light Edmonton	8.27
	Statoil Cheecham Dilbit	15.32
	Statoil Cheecham Synbit	18.75
	Suncor Synthetic (all grades)	24.16
	Surmont Heavy Blend	18.82
	Synbit Blend	21.65
	Syncrude Synthetic (all grades)	21.39
	Synthetic Sweet Blend	22.78
	Tundra Sweet	8.27
	Wabasca	6.79
	Western Canadian Blend	9.27
	Western Canadian Select	19.31
Chad	Doba	8.08
Colombia	Cano Limon	9.41
	Castilla	9.61
	Cusiana	10.67
	Magdalena	22.27
	Rubiales	9.20
	South Blend	9.22

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
Colombia (cont'd.)	Vasconia	9.33
Congo	Azurite	11.49
	Djeno	11.87
Ecuador	Napo	9.56
	Oriente	10.90
Equatorial Guinea	Ceiba	10.88
	Zafiro	21.56
Iraq	Basra Light	13.08
Kuwait	Kuwait	10.31
Libya	Amna	13.98
Malaysia	Tapis	11.00
Mauritania	Chinquetti	9.28
Mexico	Isthmus	10.16
	Isthmus Topped	13.16
	Maya	7.97
Neutral Zone	Eocene	7.48
	Khafji	9.04
	Ratawi	9.42
Nigeria	Agbami	19.29
	Amenam	17.92
	Antan	33.44
	Bonga	6.44
	Bonny	15.53
	Brass	82.48
	EA	6.24
	Erha	10.50
	Escravos	20.52
	Forcados	22.41
	Okono	27.55
	OKWB	34.80
	Pennington	21.69
	Qua Iboe	15.25
	Yoho	15.25
Oman	Oman	12.72
Peru	Loreto	8.23
Peru (cont'd.)	Mayna	9.85

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
Russia	ESPO	13.70
	M100	19.18
	Sokol	10.51
	Vityaz	11.55
Saudi Arabia	Arab Extra Light	9.35
	Arab Light	9.15
	Arab Medium	8.66
	Arab Heavy	8.77
Thailand	Bualuang	5.12
Trinidad	Calypso	7.37
	Galeota	10.57
UAE	Murban	9.92
	Upper Zakum	8.97
Venezuela	Bachaquero	26.77
	Boscan	10.76
	Hamaca	23.51
	Hamaca DCO	7.63
	Laguna	26.77
	Mesa 30	11.45
	Petrozuata (all synthetic grades)	23.53
	Zuata (all synthetic grades)	23.51
US Alaska	Alaska North Slope	12.93
US Colorado	Niobrara	8.03
US New Mexico	Four Corners	9.37
	New Mexico Intermediate	9.37
	New Mexico Sour	9.37
	New Mexican Sweet	9.37
US North Dakota	Bakken	10.18
	North Dakota Sweet	10.18
	Williston Basin Sweet	10.18
US Oklahoma	Oklahoma Sour	12.03
	Oklahoma Sweet	12.03
US Texas	Eagle Ford Shale	12.03
	East Texas	12.03
	North Texas Sweet	12.03
	South Texas Sweet	12.03

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
US Texas (cont'd.)	West Texas Intermediate	12.03
	West Texas Sour	12.03
US Utah	Covenant	3.78
	Utah Sweet	6.14
US Wyoming	Wyoming Sweet	24.11
US California Fields	Aliso Canyon	4.16
	Ant Hill	22.04
	Antelope Hills	6.56
	Antelope Hills, North	20.91
	Arroyo Grande	32.63
	Asphalto	8.00
	Bandini	6.78
	Bardsdale	3.63
	Barham Ranch	2.64
	Beer Nose	2.50
	Belgian Anticline	3.56
	Bellevue	7.52
	Bellevue, West	4.55
	Belmont, Offshore	4.15
	Belridge, North	4.90
	Belridge, South	16.65
	Beverly Hills	4.49
	Big Mountain	2.58
	Blackwells Corner	5.03
	Brea-Olinda	3.17
	Buena Vista	7.56
	Burrel	25.23
	Cabrillo	2.49
	Canal	4.17
	Canfield Ranch	3.99
	Carneros Creek	3.40
	Cascade	2.12
	Casmalia	9.35
	Castaic Hills	2.52
	Cat Canyon	4.13
	Cheviot Hills	3.39

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Table 9
Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
US California Fields (cont'd.)	Chico-Martinez	17.24
	Cienaga Canyon	4.08
	Coalinga	32.82
	Coles Levee, N	4.56
	Coles Levee, S	2.70
	Comanche Point	8.32
	Coyote, East	6.15
	Cuyama, South	14.43
	Cymric	21.48
	Deer Creek	9.96
	Del Valle	4.73
	Devils Den	5.88
	Edison	16.67
	El Segundo	3.77
	Elk Hills	6.30
	Elwood, S., Offshore	3.57
	Fruitvale	3.87
	Greeley	9.60
	Hasley Canyon	2.15
	Helm	3.93
	Holser	3.04
	Honor Rancho	4.09
	Huntington Beach	5.11
	Hyperion	2.05
	Inglewood	9.52
	Jacalitos	2.40
	Jasmin	13.98
	Kern Front	29.65
	Kern River	12.99
	Kettleman Middle Dome	3.70
	Kettleman North Dome	5.14
	Landslide	12.17
	Las Cienegas	4.63
	Livermore	2.56
	Lompoc	19.65

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Table 9
Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
US California Fields (cont'd.)	Long Beach	6.84
	Long Beach Airport	4.02
	Los Angeles Downtown	5.71
	Los Angeles, East	10.02
	Lost Hills	11.18
	Lost Hills, Northwest	3.91
	Lynch Canyon	12.97
	Mahala	2.70
	McCool Ranch	3.32
	McDonald Anticline	4.30
	McKittrick	28.72
	Midway-Sunset	29.27
	Montalvo, West	2.28
	Montebello	14.96
	Monument Junction	3.62
	Mount Poso	11.71
	Mountain View	3.71
	Newhall-Potrero	2.85
	Newport, West	4.38
	Oak Canyon	3.50
	Oak Park	2.48
	Oakridge	2.39
	Oat Mountain	2.59
	Ojai	2.75
	Olive	1.98
	Orcutt	13.35
	Oxnard	9.90
	Paloma	3.51
	Placerita	41.72
	Playa Del Rey	4.58
	Pleito	2.60
	Poso Creek	32.09
	Pyramid Hills	3.34
	Railroad Gap	5.05
	Raisin City	8.72
	Ramona	3.41

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
US California Fields (cont'd.)	Richfield	4.40
	Rincon	3.93
	Rio Bravo	5.75
	Rio Viejo	2.87
	Riverdale	3.74
	Rose	2.70
	Rosecrans	5.52
	Rosecrans, South	3.11
	Rosedale	6.49
	Rosedale Ranch	8.00
	Round Mountain	27.77
	Russell Ranch	7.56
	Salt Lake	2.67
	Salt Lake, South	3.84
	San Ardo	31.48
	San Miguelito	5.65
	San Vicente	2.47
	Sansinena	2.56
	Santa Clara Avenue	3.49
	Santa Fe Springs	10.50
	Santa Maria Valley	5.15
	Santa Susana	2.93
	Sargent	3.98
	Saticoy	3.33
	Sawtelle	3.18
	Seal Beach	5.08
	Semitropic	3.48
	Sespe	2.79
	Shafter, North	3.01
	Shiells Canyon	3.38
	South Mountain	3.31
	Stockdale	2.13
	Tapia	7.94
	Tapo Canyon, South	2.92
	Tejon	6.49
	Tejon Hills	6.47

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Table 9

Carbon intensity lookup table for crude oil production and transport

Country of Origin	Crude Identifier	Carbon Intensity (gCO ₂ e/MJ)
US California Fields (cont'd.)	Tejon, North	3.14
	Temescal	2.75
	Ten Section	6.60
	Timber Canyon	2.99
	Torrance	4.49
	Torrey Canyon	2.73
	Union Avenue	3.57
	Ventura	4.61
	Wayside Canyon	1.67
	West Mountain	2.84
	Wheeler Ridge	4.28
	White Wolf	1.88
	Whittier	2.42
	Wilmington	7.02
	Yowlumne	10.62
US Federal OCS	Zaca	8.16
	Beta	1.71
	Carpinteria	2.85
	Dos Cuadras	4.00
	Hondo	5.54
	Hueneme	3.04
	Pescado	5.72
	Point Arguello	14.23
	Point Pedernales	9.38
	Sacate	3.59
	Santa Clara	2.47
	Sockey	8.35

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DEFINITIONS AND ACRONYMS.

Definitions.

The definitions in this section apply throughout this chapter, except as otherwise specified.

Alternative fuel

“Alternative fuel” means any transportation fuel that is not Washington blendstock or a diesel fuel, including but not limited to, those fuels specified in clean fuels. See the Applicability section.

Battery electric vehicle

“Battery electric vehicle (BEV)” means any vehicle that operates solely by use of a battery or battery pack, or that is powered primarily through the use of an electric battery or battery pack but uses a flywheel or capacitor that stores energy produced by the electric motor or through regenerative braking to assist in vehicle operation.

Biodiesel

“Biodiesel” means means the monoalkyl esters of long chain fatty acids derived from plant or animal matter that meet the registration requirements for fuels and fuel additives established by EPA and standards established by the American society of testing and materials.

Biodiesel blend

“Biodiesel blend” means a blend of biodiesel and diesel fuel containing 6% (B6) to 20% (B20) biodiesel and meeting ASTM D7467-08 (October 1, 2008), *Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to 20)*, which is incorporated by reference.

Biogas

“Biogas” means the raw methane and carbon dioxide derived from the anaerobic decomposition of organic matter in a landfill or artificial reactor (digester). Biogas often contains a number of other impurities such as hydrogen sulfide, and it cannot be directly injected into natural gas pipelines or combusted in most natural-gas-fueled vehicles. It can be used as a fuel in boilers and engines to produce electrical power. The biogas can be refined to produce near-pure methane, which is sold as biomethane.

Bio- CNG

“Bio-CNG” means biogas-derived CNG. Bio-CNG has equivalent or better performance characteristics than CNG. Therefore, bio-CNG is expected to have a methane content and LHV that is equivalent to or better than CNG.

Bio- LNG

“Bio-LNG” means biogas-derived LNG. Bio-CNG has equivalent or better performance characteristics than LNG.

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Bio-L-CNG

“Biogas L-CNG” means liquefied biogas that has been transported to a dispensing station where it was then re-gasified and compressed to a pressure greater than ambient pressure.

Biomass

“Biomass” means any organic material not derived from fossil fuels, including, but not limited to, agricultural crops, agricultural wastes and residues, waste pallets, crates, dunnage, manufacturing, construction wood wastes, landscape and right-of-way tree trimmings, mill residues that result from milling lumber, rangeland maintenance residues, biosolids, sludge derived from organic matter, wood and wood waste from timbering operations.

Biomass-based diesel

“Biomass-based diesel” means a biodiesel (mono-alkyl ester) or a renewable diesel that complies with ASTM D975-08ae1, (edited December 2008), *Specification for Diesel Fuel Oils*, which is incorporated herein by reference. This includes a renewable fuel derived from co-processing biomass with a petroleum feedstock.

Biomethane

“Biomethane” means when biogas is refined, the carbon dioxide and the impurities present in biogas are separated from the methane in the mixture, resulting in a product of near-pure methane content. This product is called biomethane. Biomethane has equivalent or better performance characteristics than natural gas.

Blendstock

“Blendstock” means a component that is either used alone or is blended with another component(s) to produce a finished fuel used in a motor vehicle. A blendstock that is used directly as a transportation fuel in a vehicle is considered a finished fuel.

Broker

“Broker” is a third party user registered in the Online Registration System specifically to facilitate the transfer of credits between regulated parties.

Carbon intensity

“Carbon intensity” means the amount of lifecycle greenhouse gas emissions, per unit of energy of fuel delivered, expressed in grams of carbon dioxide equivalent per megajoule (gCO_{2e}/MJ).

Compressed natural gas

“Compressed natural gas (CNG)” means natural gas that has been compressed to a pressure greater than ambient pressure.

Credits and deficits

“Credits” and “deficits” means the measures used for determining a regulated party's compliance with the Clean Fuel Standard in Table 1 or Table 2. Credits and deficits are

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denominated in units of metric tons of carbon dioxide equivalent (CO₂e), and are calculated under the Calculating Credits section.

Day

“Day” means a calendar day unless otherwise specified as a business day.

Denatured fuel ethanol

“Denatured fuel ethanol” see E100.

Diesel fuel

“Diesel fuel” (also called conventional diesel fuel) means any fuel that is commonly or commercially known, sold or represented as diesel fuel, including any mixture of primarily liquid hydrocarbons – organic compounds consisting exclusively of the elements carbon and hydrogen – that is sold or represented as suitable for use in an internal combustion, compression-ignition engine.²

Diesel fuel blend

“Diesel fuel blend” means a blend of diesel fuel and biodiesel containing no more than 5% (B5) biodiesel by weight and meeting ASTM D975-08ae1, (edited December 2008), *Specification for Diesel Fuel Oils*, which is incorporated herein by reference.

E100

“E100,” also known as “denatured fuel ethanol,” means nominally anhydrous ethyl alcohol meeting ASTM D4806-08 (July 1, 2008), *Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel*, which is incorporated herein by reference.

Electrical distribution utility

“Electrical distribution utility” means an entity that owns or operates an electrical distribution system, including an utility subject to the Utilities and Transportation Commission’s jurisdiction.

Electric vehicle

“Electric vehicle (EV),” for purposes of this rule, refers to battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs).

Finished fuel

“Finished fuel” means a fuel that is used directly in a vehicle for transportation purposes without requiring additional chemical or physical processing.

Fossil CNG

“Fossil CNG” means CNG that is derived solely from petroleum or fossil sources, such as oil fields and coal beds.

² Definition source: 13 CCR, section [2281\(b\)](#).

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Fossil LNG

“Fossil LNG” means LNG that is derived solely from petroleum or fossil sources, such as oil fields and coal beds.

Fossil L-CNG

“Fossil L-CNG” means L-CNG that is derived solely from petroleum or fossil sources, such as oil fields and coal beds.

Fuel pathway code

“Fuel pathway code” means the identifier in the Online Registration System that applies to a specific fuel pathway in the Lookup Table.

Fuel Transaction Form

“Fuel Transaction Form” means an Online Registration System form completed by a regulated party for each of their business partners once a quarter with information that is routed upon submittal to the appropriate business partners for confirmation and reconciliation of aggregated and non-aggregated information provided in the Product Transfer Documents.

Heavy duty vehicle

“Heavy duty vehicle (HDV)” means a heavy-duty vehicle that is rated at 14,001 or more pounds gross vehicle weight rating (GVWR).

Home fueling

“Home fueling” means the dispensing of fuel by use of a fueling appliance that is located on or within a residential property with access limited to a single household.

Hybrid electric vehicle

“Hybrid electric vehicle (HEV)” means any vehicle that can draw propulsion energy from both of the following on-vehicle sources of stored energy: 1) a consumable fuel and 2) an energy storage device such as a battery, capacitor, or flywheel.

Import

“Import” means to bring a product from outside Washington into Washington.

Importer

“Importer” means the person who owns the liquid transportation fuel or blendstock, in the transportation equipment that held or carried the product, at the point the equipment entered Washington. For purposes of this definition, “transportation equipment” includes, but is not limited to, rail cars, cargo tanker trucks, and pipelines.

LDV & MDV

“LDV & MDV” means a vehicle category that includes both light-duty vehicles (LDV) and medium-duty vehicles (MDV).

- (a) “LDV” means a vehicle that is rated at 8500 pounds or less gross vehicle weight rating (GVWR).

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- (b) “MDV” means a vehicle that is rated between 8501 and 14,000 pounds gross vehicle weight rating (GVWR).

Liquefied compressed natural gas (L-CNG)

“Liquefied Compressed Natural Gas (L-CNG)” means natural gas that has been liquefied and transported to a dispensing station where it was then re-gasified and compressed to a pressure greater than ambient pressure.

Liquefied natural gas

“Liquefied natural gas (LNG)” means natural gas that has been liquefied.

Liquefied petroleum gas

“Liquefied petroleum gas (LPG or propane)” means normal butane, isobutane, propane, or butylene (including isomers) or mixtures composed predominantly thereof in liquid or gaseous state having a vapor pressure in excess of 40 pounds per square inch absolute at a temperature of 100 degrees Fahrenheit.

Multi-fuel vehicle

“Multi-fuel vehicle” means a vehicle that uses two or more distinct fuels for its operation. A multi-fuel vehicle (also called a vehicle operating in blended-mode) includes a bi-fuel vehicle and can have two or more fueling ports onboard the vehicle. A fueling port can be an electrical plug or a receptacle for liquid or gaseous fuel. As an example, a plug-in hybrid hydrogen internal combustion engine vehicle (ICEV) uses both electricity and hydrogen as the fuel source and can be “refueled” using two separately distinct fueling ports.

Natural gas

“Natural gas” means a mixture of gaseous hydrocarbons and other compounds, with at least 80 percent methane (by volume), and typically sold or distributed by utilities, such as any utility company regulated by the Washington Utilities and Transportation Commission.

On-road

“On-road” means a vehicle that is designed to be driven on public highways and roadways and that is registered or is capable of being registered by the Washington Department of Motor Vehicles (DMV) or DMV's equivalent in another state, province, or country.

Physical pathway

“Physical pathway” means the applicable combination of actual fuel delivery methods, such as truck routes, rail lines, gas/liquid pipelines, electricity transmission lines, and any other fuel distribution methods, through which the regulated party reasonably expects the fuel to be transported under contract from the entity that generated or produced the fuel, to any intermediate entities, and ending at the fuel blender, producer, importer, or provider in Washington.

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Physical pathway code

“Physical pathway code (PPC)” means the code that describes the applicable physical pathway.

Plug-In hybrid electric vehicle

“Plug-In Hybrid Electric Vehicle (PHEV)” means a hybrid electric vehicle with the capability to charge a battery from an off-vehicle electric energy source that cannot be connected or coupled to the vehicle in any manner while the vehicle is being driven.

Private access fueling facility

“Private access fueling facility” means a fueling facility with access restricted to privately-distributed electronic cards (“cardlock”) or is located in a secure area not accessible to the public.

Producer

“Producer” means, with respect to any liquid fuel, the person who owns the liquid fuel when it is supplied from the production facility. “Producer” includes an “out-of-state producer,” which is a producer of a fuel that has its production facility for that fuel located outside Washington and has opted into the Washington program.

Product transfer document

“Product Transfer Document” means a document that authenticates the transfer of ownership of fuel from a regulated party to the recipient of the fuel. A PTD is created by a regulated party to contain information collectively supplied by other fuel transaction documents, including Bill of Lading, invoices, contracts, meter tickets, rail inventory sheets, Renewable Fuels Standard (RFS2) product transfer documents, etc.

Production facility

“Production facility” means, with respect to any liquid fuel (other than LNG and L-CNG), a facility at which the fuel is produced. “Production facility” means, with respect to natural gas (CNG, LNG, L-CNG or biomethane), a facility at which fuel is converted, compressed, liquefied, refined, treated, or otherwise processed into CNG, LNG, L-CNG, biomethane, or biomethane-natural gas blend that is ready for transportation use in a vehicle without further physical or chemical processing.

Public access fueling facility

“Public access fueling facility” means a fueling facility that is not a private access fueling dispenser.

Regulated fuel

“Regulated fuel” means a transportation fuel with a carbon intensity value that exceeds the Clean Fuel Standard for gasoline and gasoline substitutes in Table 1 or the Clean Fuel Standard for diesel fuel and diesel fuel substitutes in Table 2

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Regulated party

“Regulated party” means a person responsible for meeting the Clean Fuel Standard for gasoline and gasoline substitutes in Table 1 or the Clean Fuel Standard for diesel fuel and diesel fuel substitutes in Table 2.

Reporting party

“Reporting party” means the person responsible for notifying Ecology with their quarterly and annual compliance reports by completing the Online Registration.

Renewable diesel

“Renewable diesel” means a motor vehicle fuel or fuel additive that is all the following:

- (1) Registered as a motor vehicle fuel or fuel additive under 40 CFR part 79;
- (2) Not a mono-alkyl ester;
- (3) Intended for use in engines that are designed to run on conventional diesel fuel; and
- (4) Derived from nonpetroleum renewable resources.

Reporting party

“Reporting party” means any person who, is the initial regulated party, or a person to whom the compliance obligation has been transferred directly or indirectly from the initial regulated party.

Single fuel vehicle

“Single fuel vehicle” means a vehicle that uses a single external source of fuel for its operation. The fuel can be a pure fuel, such as gasoline, or a blended fuel such as E85 or a diesel fuel containing biomass-based diesel.

Transaction date

“Transaction date” means the title transfer date as shown on the product transfer document.

Transaction quantity

“Transaction quantity” means the amount of fuel reported in a transaction. A transaction quantity may be reported in gallons, KWh, scf, or other appropriate units.

Transaction type

“Transaction type” means the nature of a fuel-based transaction, as defined below:

- a. “Production for use in Washington” means the transportation fuel was produced inside or outside Washington and was designated at the time of production for use only in Washington;
- b. “Import” means the transportation fuel was produced outside Washington and imported into Washington;
- c. “Purchased with Obligation” means the transportation fuel was purchased with the compliance obligation from a regulated party;
- d. “Purchased without Obligation” means the transportation fuel was purchased without the compliance obligation from a regulated party;

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- e. “Sold with Obligation” means the transportation fuel was sold with the compliance obligation by a regulated party;
- f. “Sold without Obligation” means the transportation fuel was sold without the compliance obligation by a regulated party;
- g. “Export” means the transportation fuel was exported outside of Washington after temporarily being in Washington;
- h. “Loss of Inventory” means the fuel entered the Washington fuel pool but was not used in a motor vehicle due to spillage; and
- i. “Not Used for Transportation” means the fuel did not meet the definition for “transportation fuel.”
- j. “EV Charging” means providing electricity to recharge plug-in electric vehicles, including battery electric vehicles and plug-in hybrid electric vehicles.
- k. “NGV Fueling” means the dispensing of natural gas at a fueling station designed for fueling natural gas vehicles.

Transportation fuel

“Transportation fuel” means any fuel used or intended for use as a motor vehicle fuel or for transportation purposes in a nonvehicular source.

WA-GREET 2013

“WA-GREET 2013” means the full life-cycle model developed by Argonne that evaluates vehicle and fuel combinations on a full fuel-cycle/vehicle-cycle basis. Washington uses the 2013 version. The [GREET](#) model means The Greenhouse Gases, Regulated Emissions, and Energy use in Transportation Model.

Acronyms.

For the purposes of this chapter, the following acronyms apply.

“BEV” means battery electric vehicles.

“CFR” means Code of Federal Regulations.

“CI” means carbon intensity.

“CNG” means compressed natural gas.

“EER” means energy economy ratio.

“EV” means electric vehicle.

“EVSP” means electric vehicle service provider.

“FCV” means fuel cell vehicles.

“FFV” means flex fuel vehicles.

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“gCO₂e/MJ” means grams of carbon dioxide equivalent per mega joule.

“WA-GREET” means Washington – Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation.

“GVWR” means gross vehicle weight rating.

“HDV” means heavy-duty vehicles.

“HEV” means hybrid electric vehicle.

“ICEV” means internal combustion engine vehicle.

“LDV” means light-duty vehicles.

“LDV & MDV” means a vehicle category that includes both light-duty vehicles (LDV) and medium-duty vehicles (MDV). See definition of LDV & MDV.

“LNG” means liquefied natural gas.

“LPG” means liquefied petroleum gas.

“MCON” means marketable crude oil name.

“MDV” means medium-duty vehicles.

“MJ” means megajoules.

“MT” means metric tons of carbon dioxide equivalent.

“PHEV” means plug-in hybrid vehicles.

“TEOR” means thermally enhanced oil recovery.

“ULSD” means Washington Ultra Low Sulfur Diesel.

“CFS” means Clean Fuel Standard.